UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,607	09/19/2001	William J. Gaylord	600027.0044US01	1141

39262 7590 10/22/2004

BELLSOUTH CORPORATION
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER	
RAMAKRISHNAIAH, MELUR	
ART UNIT	**PAPER NUMBER**
2643	

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/955,607	GAYLORD, WILLIAM J.	
	Examiner	Art Unit	
	Melur Ramakrishnaiah	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9-20-2004*
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 5-8, are rejected under 35 U.S.C 102(e) as being anticipated by Maruya et al. (EP 0987897 A2, hereinafter Maruya).

Regarding claim 1, Maruya discloses a method of spatial multiplex video picture from a plurality of picture frames where each video picture frame has a picture header components with each frame component having a component header , the method comprising: removing the picture header from each video picture frame to be included in the spatial multiplex video picture frame, generating a new picture header for the spatial matrix video picture frame, the new picture header including a slice format, altering the component headers of each video picture frame to be included in the spatial multiplex video picture frame to set a slice format based picture position for the video

picture frame with in a picture produced by the spatial multiplex video picture frame, and generating the spatial multiplex video picture frame by concatenating the new picture header together with the plurality of video picture frames having no picture header and having altered components (figs. 1-9, abstract and paragraphs: 0009, 0022-0046).

Regarding claims 5-8, Maruya further teaches the following: writing the spatial multiplex video picture frame to a buffer as the new picture header and video picture frames of the spatial multiplex video picture frame are being concatenated, transmitting the spatial multiplex video picture frame to a network interface (reads on 108, fig. 1), detecting the end of the spatial multiplex video picture frame performing the steps of claim 1 for the next spatial multiplex video picture frame, slice format based picture position for each video picture frame is a unique picture position and the spatial multiplex video picture frame represents a mosaic of the video picture frames (fig. 5), decoding the component headers prior to altering them and encoding the new picture header (reads on code string analyzer (104, fig. 1) and altered component headers prior to concatenating the new picture header together with each video picture frame, detecting wither one or more video picture frames has component header that is group of blocks format and when a group of blocks format is detected, converting the component header to the slice format prior to altering the component header to a set a slice format based picture position for video picture frame within picture produced by the spatial multiplex video picture frame (figs. 1-9, abstract and paragraphs: 0009, 0022-0046).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2, 4, 9-12, 14-15, 17, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruya in view of Tucker et al (US PAT: 6,590,604, filed 4-7-2000, hereinafter Tucker).

Maruya differs from claims 2, 4 in that although he teaches sending the spatial multiplex video picture to the output device (fig. 5), he does not teach the following: receiving video picture frames from a plurality of locations through a network, and sending video picture to the plurality of locations through the network, negotiating a compatible mode of operation with plurality of devices and broadcasting a start indicator to the plurality of devices to synchronize transmission of video picture frames.

However, Tucker discloses personal video conferencing system having distributed processing archotecture which teaches the following: receiving video picture frames from a plurality of locations through a network, and sending video picture to the plurality of locations through the network, negotiating a compatible mode of operation with plurality of devices and broadcasting a start indicator to the plurality of devices to synchronize transmission of video picture frames (col. 2 lines 33-55, col. 6 lines 65-67 and fig. 7 col. 9, line 40 - col. 10, line 20).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Maruya's system to provide for the following: receiving video picture frames from a plurality of locations through a network, and sending video picture to the plurality of locations through the network, negotiating a compatible mode of operation with plurality of devices and broadcasting a start indicator to the plurality of devices to synchronize transmission of video picture frames as this arrangement would facilitate video conferencing among remote participants using a network and also reproducing audio and video of the conference participants as taught by Tucker.

Maruya differs from claims 9, 14, and 18 by not teaching the following: a data packet switch, plurality of computing devices with each having a serial interface in communication with the data packet switch, a network having a plurality of communication channels, and processing device, transmit video picture frame to the plurality of communication channels, a plurality of video sites linked through the plurality of communication channels.

However, Tucker teaches the following: a data packet switch (708, fig. 7), plurality of computing devices (704, 708, 720, 722, 712, 714, fig. 7) with each having a serial interface in communication with the data packet switch (708, fig. 7) , a network having a plurality of communication channels, and processing device, transmit video picture frame to the plurality of communication channels, a plurality of video sites linked through the plurality of communication channels (fig. 7, col. 9, line 40 –col. 10 line, 20)

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Maruya's system to provide for the following: a data

packet switch, plurality of computing devices with each having a serial interface in communication with the data packet switch, a network having a plurality of communication channels, and processing device, transmit video picture frame to the plurality of communication channels, a plurality of video sites linked through the plurality of communication channels as this arrangement would facilitate video conferencing among remote participants using a network and also reproducing audio and video of the conference participants as taught by Tucker.

Maruya differs from claims 10-12, 15, in that although he teaches transmitting spatial multiplex video picture frame to the output device (fig. 5), he does not teach the following: transmitting the video picture frame to the data packet switch, computers with single microprocessors, data packet switch is an Ethernet switch and serial interface is an Ethernet interface, a plurality of video sites in communication with plurality of communication channels, the plurality of video sites configured to encode and transmit the video picture frame by at least one processing device.

However, Tucker teaches the following: transmitting the video picture frame to the data packet switch, computers with single microprocessors (fig. 2), data packet switch (708, fig. 7) is an Ethernet switch and serial interface is an Ethernet interface, a plurality of video sites (712, 714, 704, 708, 720, 722, fig. 7) in communication with plurality of communication channels, the plurality of video sites configured to encode and transmit the video picture frame by at least one processing device (fig. 7 and fig. 1, col. 3 lines 58-67, col. 8 lines 64-67, col. 9 lines 1-3)

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Maruya's system to provide for the following: transmitting the video picture frame to the data packet switch, computers with single microprocessors, data packet switch is an Ethernet switch and serial interface is an Ethernet interface, a plurality of video sites in communication with plurality of communication channels, the plurality of video sites configured to encode and transmit the video picture frame by at least one processing device as this arrangement would facilitate video conferencing using different communication media as taught by Tucker, thus providing versatility for video conferencing.

Regarding claim 17,19-20, Maruya teaches the following: slice format based picture position for each video picture frame is a unique picture position and the spatial multiplex video picture frame represents a mosaic of the video picture frames, one or more video sites are configured to include only picture frames received from other video sites in the spatial multiples video picture frames as shown in fig. 7a (figs. 1-9, abstract and paragraphs: 0009, 0022-0046).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maruya in view of Roy (US PAT: 6,049,531).

Maruya differs from claim 1 in that although teaches sending the spatial multiplex video picture to the output device (fig. 5), he does not teach the following: establishing a connection through an asymmetric digital subscriber line (ADSL) and sending the video pictures through ADSL line.

However, Roy discloses real time multi media conferencing over an ATM network using an intelligent ATM ADSL modem which teaches the following: establishing a connection through an asymmetric digital subscriber line (ADSL) and sending the video pictures through ADSL line.(fig. 1, col. 3 lines 58-67, col. 4 lines 1-13, and fig. 10 col. 14 lines 34-55).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Maruya's system to provide for the following: establishing a connection through an asymmetric digital subscriber line (ADSL) and sending the video pictures through ADSL line as this arrangement would provide another well known communication medium for effecting video conferencing among remote participants as taught by Roy.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maruya in view of Gu et al. (US PAT: 6,658,618, filed 9-2-1999, hereinafter Gu).

Regarding claim 13, Maruya does not teach the following: video picture frames are from the set of QCIF, CIF, and 4CIF video picture frames.

However, Gu discloses error recovery method for video compression coding which teaches the following: video picture frames are from the set of UCIF, CIF, and 4CIF video picture frames (fig. 2, col. 6 lines 38-42).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Maruya's system to provide for the following: video picture frames are from the set of QCIF, CIF, and 4CIF video picture frames as this

arrangement provide required format for processing the video signals as taught by Gu, thus facilitating the processing of video signals.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maruya in view of Tucker as applied to claim 15 above, and further in view of Roy.

Regarding claim 16, the combination does not teach the following: pluralities of video sites are in communication with plurality of communication channels through an asymmetric digital subscriber line.

However, Roy teaches the following: pluralities of video sites are in communication with plurality of communication channels through an asymmetric digital subscriber line (fig. 1, col. 3 lines 58-67, col. 4 lines 1-13).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: : pluralities of video sites are in communication with plurality of communication channels through an asymmetric digital subscriber line as this arrangement would provide another well known communication medium for effecting video conferencing among remote participants as taught by Roy.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (703) 305-1461. The examiner can normally be reached on M-F 6:30-4:00; every other F Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703)305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Melur Ramakrishnaiah
Primary Examiner
Art Unit 2643